

IN THE SPECIFICATION

Please amend the two paragraphs beginning at page 8, line 7 as follows:

FIG. 1A shows a pixel view diagram of a sample scan progression using an error diffusion method, ~~and a generalized logic diagram applicable to error diffusion methods;~~

FIG. 1B shows a generalized logic diagram applicable to error diffusion methods;

Please amend the paragraph beginning at page 9, line 13 as follows:

In FIG. ~~[[1]]~~ 1A, pixel view 100 of an error diffusion processing is shown on a representative portion of a pixel grid. Current pixel 102 is shown in the sequence of the scan or processing order indicated by line 104. Processing order 104 is depicted as a serpentine scanning order, which is by of example only, and not by way of limitation. Other forms or orders for processing pixels using error diffusion are known and commonly implemented, one alternative being, for example, raster order.

Please amend the paragraph beginning at page 10, line 8 as follows:

Also shown in FIG. ~~[[1]]~~ 1B is a block diagram 120 illustrating the generic logic of error diffusion methods. The current pixel 102 provides an input $f(i,j)$ 122 which is modified at 124 by a calculus of past quantization errors to create a modified input $\tilde{f}(i,j)$ at 126. This modified value is then compared to a threshold value that quantizes the modified input $\tilde{f}(i,j)$ to a binary output value $b(i,j)$ at 130. This quantized

output $b(i,j)$ is the binary halftone image, representing whether a dot is printed at the current pixel or not.

Please amend the paragraph beginning at page 10, line 24 as follows:

Referring now to FIG. 2, a schematic of a representative pixel grid 200 is shown. Pixel grid 200 is comprised of a plurality of addressable pixels, such as pixel 202. It is this generic form of pixel grid upon which error diffusion methods are applied, as described just previously. However, many output devices today have a higher level of resolution in one direction. For example certain printers have pulse width modulation (PWM) capability that extends resolution typically in the horizontal direction. Pulse width modulation, though a specific example, belongs to a generalized situation characterized by an output device having some amount of sub-pixel addressability that allows for modulation of tone at the sub-pixel level. In such cases, each pixel, e.g., pixel 202, has a corresponding set or distribution of sub-pixels, such as sub-pixels 202a and 202b, based on degree of sub-pixel resolution attendant to the application. In the example of sample pixel 202, the degree of resolution is two sub-pixels per pixel, which resolution extends horizontally. However, the sub-pixel resolution (also referred to herein as sub-pixel factor S) of 2 is only by way of example and without limitation. Alternative sub-pixel resolutions of $S = 3$ at point 204 and $S = 4$ at point 206 are also shown in FIG. 2, and the actual sub-pixel resolution depends on the specific output device for which the halftone image is being processed. Additionally, it is not a requirement or limitation of the present invention that sub-pixel resolution be constrained to the horizontal direction.

Please amend the paragraph beginning at page 12, line 23 as follows:

Finally, in example 330, subject current pixel 332 is comprised of a single sub-pixel exposure 334 which is right-center justified. Thus, this configuration is similar to ~~example 330~~example 310, showing a single isolated sub-pixel. However, in this example, it may be possible to apply tone based on the exposure configurations of above pixel 336 and left pixel 338 if a different justification is used. Though not reliably reproducible in its current justification, sub-pixel 334 may be applied if a left justification is used.

Please amend the paragraph beginning at page 15, line 1 with the following:

Each of the allowable exposure configurations 414 indicated in relation to the specific neighboring input pixels 412 are represented graphically in FIG. 4B at 420, 422, 424 and 426, and the current pixel 402 is shown at points 402a, 402b, 402c, and 402d for exposure levels 0, 0.5, 0.75, and 1 respectively. As indicated at 416, the justification setting is LEFT. Note there is not an allowable exposure configuration for one quarter exposure (0.25). This is an instance in which a particular sub-pixel exposure configuration is avoided using the present invention because, in the present example, an isolated single sub-pixel does not reliably reproduce. Though a conceivable or possible configuration, if the modified input of the current pixel does not threshold to at least a half exposure (0.5), then the current pixel will remain untuned and the accumulated error will continue be pushed forward in the processing order.